Objectives: Knowledge of peripheral vascular disease (PVD) risk factors and their modification may impact disease progression and outcome. Our purpose was to determine if there was a difference in patient awareness based on insurance status and what subpopulations benefit most from screening.

Methods: 916 asymptomatic patients were screened for carotid stenosis, abdominal aortic aneurysm, and/or PVD. Knowledge about risk factors for vascular diseases were assessed via questionnaires. Insurance status, medications, symptoms of PVD, and past medical history were queried. Data were analyzed with Chi squared and logistic regression, and statistical significance set at $p < 0.05$.

Results: Patients were mostly female (71.1%), Caucasian (86.1%), Hispanic (85.8%), and uninsured (47.8%). Insurance status was associated with improved knowledge of PVD risk factors including diabetes mellitus ($p < 0.001$), hypertension ($p = 0.003$), and family history ($p < 0.001$). Non-Hispanics exhibited better education (diabetes mellitus $p < 0.001$, family history $p < 0.001$). Feet pallor, coolness, numbness and tingling, and lower extremity claudication correlated with abnormal ABI ($p = 0.001$, 0.021, 0.028, and 0.001, respectively). Feet pallor and claudication were independent predictors of PVD (OR = 2.70, CI 1.01 - 7.23, and OR 3.09, CI 1.21 - 7.90, respectively). Additionally, diabetes, hypertension, smoking, history of myocardial infarction, and hyperlipidemia correlated with PVD ($p < 0.001$, < 0.001, $= 0.015$, 0.013, and < 0.001, respectively).

Conclusions: These data suggest a difference in knowledge of PVD risk factors depending on insurance status. In addition, patients with risk factors such as smoking, diabetes, hypertension and hyperlipidemia are in need of early screening.

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PS160.

Management of Median Arcuate Ligament Syndrome (MALS) with Decompression and Coeliac Ganglion Sympathectomy (CGS) for Chronic Mesenteric Ischaemia (CMI). Procedural, Clinical and Enduring Results With Quality-Adjusted Time Spent Without Symptoms of Disease and Toxicity of Treatment (Q-TWiST)

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Objectives: CMI due to MALS is an erratic entity yet it is an imperative trigger of abdominal pain, often arduous to diagnose and challenging to treat. Theories invoking neuro-vascular origin have been proposed.

Methods: We appraised our encounter in treating such proviso over 8-year period. Follow-up was done by duplex ultrasound surveillance and clinical assessment at 6-monthly intervals, as well as completion of Quality of Life questionnaires. Mean age was 51 (19-70) years, M:F ratio was 1:9, 4 of 10 patients were smokers but all were none diabetics, mean BMI was 19.4Kg/m2 and mean duration of symptoms prior to surgery was 2.6years. 10 patients were treated for CMI with MAL decompression and CGS. Three had mesenteric reconstruction, Coeliac to SMA, aorta to SMA and SMA to celiac bypass.

Results: Mean hospital stay was 48hours. There was no morbidity or mortality. Symptomatic response with resolution of symptoms was seen in all patients, although a sustained weight gain was noted in six patients, all of whom had MAL decompression with CGS but no reconstruction. At a mean of 26 months follow-up, duplex ultrasound showed high velocity in the celiac axis in 50% of patients. However this did not correlate with return of symptoms, with 71% of patients remaining symptom free and satisfied at a mean follow-up interval of 2.8years.

Conclusions: MALS with decompression and CGS is associated with demonstrable improvement in mesenteric blood flow and exceptional symptomatic improvement. QTWiST gain is tremendous. High peak systolic and diastolic velocities on duplex follow-up examination are common, suggesting that symptoms are neuro-vascular in origin.

Author Disclosures: N. Hynes: Nothing to disclose; **S. Sultan**: Nothing to disclose.

C11: Poster Presentation II -Vascular Trauma: Aortic, Arterial, Venous; Venous Disease

PS162.

Intravascular Ultrasound Is More Sensitive Than Angiography in the Diagnosis of Blunt Traumatic Aortic Injury

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Objectives: Blunt traumatic aortic injury (TAI) refers to a spectrum of pathology that ranges from intimal tears to aortic rupture. Computed tomography angiography (CTA) has been widely used as a diagnostic tool in this setting. Additional imaging is required when CTA studies are equivocal. The purpose of this study is to evaluate the utility of angiography vs intravascular ultrasound (IVUS) in the diagnosis of TAI.

Methods: We performed an analysis of prospectively collected trauma registry data. TAI patients were screened with CTA and those with a positive or equivocal CTA underwent angiography and IVUS. Injuries were classified into grade 1-4 (intimal tear, intramural hematoma, pseudoaneurysm, and rupture). Patients with grade 1 injuries were managed medically. Patients with grade 2-4 injuries underwent repair. A blinded randomized retrospective review of positive and equivocal imaging studies was per-

formed. Inter-rater and intra-rater reliability were compared using Cohen's Kappa and McNemar's test, respectively.

Results: Between 5/2008 and 8/2009, 7961 patients were admitted to our trauma center, and 2153 (27%) underwent a chest CTA. 25 (0.3%) patients (21 males, mean age 21.9 years) had a positive or equivocal study. Ten patients underwent repair (9 endovascular, 1 open), and 15 patients were managed medically. The 30-day mortality, paraplegia, and stroke rate was zero. Equivocal results were more common with CTA images than with either IVUS or angiography (27% vs 2.5 and 5%, respectively; overall $p = 0.0002$). Compared to Angio, IVUS changed the diagnosis in 13% of cases - identifying injuries in 11% and ruling them out in 2%. Sensitivity and specificity of angiography with respect to IVUS was 38% and 89%, respectively.

Conclusions: CTA is useful as a screening test in suspected TAI. When additional imaging is required after an equivocal CTA, IVUS is more sensitive than angiography. Therefore, we advocate the use of IVUS in potential TAI patients in whom angiography is being considered.

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PS164.

National Outcomes of Open and Endovascular Repair of Traumatic Transection of the Thoracic Aorta

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Objectives: To compare outcomes of endovascular (TEVAR) vs open repair of traumatic transaction of the thoracic aorta (TTA).

Methods: The NIS, 2000-07, was used to identify patients with an ICD9 diagnosis of TTA (901.0), and procedure codes of either TEVAR (39.73), open (38.35, 38.45, and 39.57) or no repair.

Results: Of 9162 TTAs, 5667 received no intervention (NI). Independent predictors of NI were age > 60 (OR: 1.9; $p < 0.01$), hospital in lowest income zip code (OR:1.4; $p < 0.01$), and abd/pel vessel injury (OR:1.6; $p < 0.05$). Female gender was the only independent predictor of open repair vs TEVAR (OR:1.8 [1.1, 3.0]). Among treated patients, TEVAR use increased from 2005-07 (14-67%). Peripheral vascular disease (12 vs 5%, $p < 0.05$) was higher with TEVAR, as was mean age (42 vs 39 years; $p < 0.05$). Overall mortality was lower with any intervention than with NI (14 vs 30%, $p < 0.01$), and a trend existed towards lower mortality with TEVAR over open (10 vs 15%, $p = 0.13$). Morbidity (general complications, amputation, dehiscence & prolonged ventilation), was lower with TEVAR (24 vs 34%, $p < 0.05$) as was mean length of stay (LOS) (16 vs 21 d, $p < 0.01$). Open repair was the only multivariate predictor of postoperative morbidity (OR: 1.6 [1.0, 2.6]).

Conclusions: TEVAR is associated with lower overall morbidity, shorter LOS, and a trend towards lower mortality, while open repair is independently predictive of greater postoperative morbidity. TEVAR for traumatic thoracic aortic transections is preferred when anatomy and expertise allow.

Table: Comorbidities & Outcomes of TEVAR vs Open Repair

VARIABLE	*TEVAR*	*OPEN*	p *value*
Age (Mean ± St. Dev.)	42.3 ± 17.8	38.7 ± 18.0	<0.05
Male Gender	80.30%	69.30%	<0.05
Peripheral Vascular Disease	12.10%	5.20%	<0.05
Mortality	9.80%	15.40%	0.13
Morbidity Overall	23.60%	33.60%	<0.05
LOS (Mean ± St. Dev.)	15.6 ± 14.4	20.8 ± 18.8	<0.01

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PS166.

Role of Intravenous Ultrasound in Assessment of Iliac-Femoral Vein Stenosis

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Objectives: Lower extremity venous stasis disease could be related to outflow obstruction in the iliac-femoral vein segments due to stenosis or extrinsic compression. Conventional methods to assess these vein segments include trans-cutaneous ultrasonography and ascending venography. The trans-cutaneous approach has a low sensitivity, and venography can miss significant lesions as the assessment is undertaken in a single view. We wanted to assess the role of Intravenous ultrasound (IVUS) in detecting the location as well as the degree of stenosis in the iliac-femoral vein segments.

Methods: 104 patients with chronic lower extremity venous stasis disease were evaluated for outflow obstruction/stenosis with ascending venography and IVUS. The location and degree of any stenosis were noted. A significant stenosis was defined as a 50% reduction in the diameter of the vein relative to the adjacent vein segments. Patients with significant stenosis underwent venous stenting to restore outflow. The results of venography and IVUS were then compared.

Results: 46 (44.2%) patients had no evidence of stenosis on either venography or IVUS and hence received no stents.